

**Cost-Benefit and Regulatory Flexibility
Analyses:
U. S. Department of the Interior
National Park Service**

for

Proposed Revisions to 36 CFR Part 9, Subpart B

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I. Introduction

This report presents the cost-benefit analysis and regulatory flexibility analyses of a proposed regulatory action to revise the National Park Service (NPS) regulations at 36 CFR Part 9, Subpart B (“9B Regulations”). These regulations govern the conduct of non-Federal oil and gas operations within units of the National Park System.

The analysis consists of a statement of purpose and need and a quantitative/qualitative analysis of the likely benefits and costs resulting from the proposed action. The costs and cost savings of the proposed action are quantitatively analyzed to the extent possible. Benefits related to environmental protection, visitor values, and human health and safety are qualitatively analyzed. Quantitative analyses of the benefits were not conducted due to lack of available data, and because the additional cost of conducting quantitative analyses was not considered to be reasonably related to the expected increase in the quantity and/or quality of relevant information. Nevertheless, the National Park Service (NPS) believes that these analyses provide an adequate assessment of all relevant costs and benefits associated with the regulatory action.

The results of the cost-benefit analysis indicate that the costs of the proposed regulatory action are justified by the associated benefits. Based on the analysis of the proposed regulation, the proposed action will have an annual economic effect that is substantially less than \$100 million, and will not adversely affect an economic sector, productivity, jobs, the environment, or other units of government. This proposed regulatory action is expected to improve environmental protection, park visitor values, and economic efficiency. The results of this analysis indicate that the costs of the proposed action are justified by the associated benefits.

II. Cost-Benefit Analysis

A. Purpose and Need for Proposed Rule Changes

Executive Order 12866 (58 FR 51735) directs Federal agencies to demonstrate the need for the regulations they promulgate. In general, regulations should be promulgated only when a “market failure” exists that cannot be resolved effectively through other means. A market failure exists when private markets fail to allocate resources in an economically efficient manner. Other justifications for promulgating regulations include improving governmental functions, removing distributional inequities, and promoting privacy and personal freedom (OMB 2003).

The purpose of this proposed regulatory action is to revise the current 9B regulations controlling all activities associated with nonfederal oil and gas exploration and

development inside park boundaries where access is on, across, or through federally owned or controlled lands or waters.

The key revisions of the proposed regulatory action are to:

- Remove exemption for grandfathered operations;
- Remove exemption for operations that do not require access on, across or through federally owned or controlled lands or water;
- Replace current bonding limits with actual cost of reclamation;
- Add a provision to recover NPS costs associated with administration of permits;
- Add a fee provision for new use of federal lands or waters outside the boundaries of the nonfederal property right; and
- Add penalty provisions to address minor acts of noncompliance.

The primary purposes of revising and adding provisions to the existing regulations are to 1) strengthen the NPS's ability to fulfill its mission to protect park resources and visitor values, 2) provide equitable financial compensation and surety to protect the public's resources and taxpayer dollars, and 3) create efficiencies in the regulatory requirements. It follows that the need for the revisions flows from limitations in the current regulations in these three areas. Economic efficiency will be improved by these revisions.

B. Baseline Conditions

The costs and benefits of any regulatory action are measured against the baseline conditions. The baseline conditions consist of the state of the regulatory environment that exists today as well as the expected future costs and environmental consequences, both positive and negative, that might occur without the proposed regulatory action. For this proposed regulatory action, the baseline conditions are described by the current 9B regulations. Table 1 summarizes the baseline level of activity.

For production operations, the NPS has found that since implementing the 9B regulations, the overall level of oil and gas wells in parks has remained roughly around 550 wells. That is, plugging and reclamation of old wells has essentially offset drilling and production of new wells.

In addition to long-term production activities, short-term exploration and development activities include geophysical seismic exploration and drilling operations.

Since 1998, 20 seismic surveys have been conducted in 6 parks for an average of 1.4 surveys per year. All but 1 survey have been 3-dimensional seismic surveys covering large geographic areas. Going forward, the level of seismic activity is expected to taper off to 1 3D proposal per year because parks in areas of higher exploration interest have had much of the acreage surveyed leaving fewer acres yet to be surveyed.

The historical average of new drilling operations is about 4 proposals per year.

Table 1 - Summary of Baseline Level of Oil and Gas Activity	
Item	Baseline
Level of Activity	
Total Production Operations, # of wells	534
<i>Subject to 9B Regulation</i>	215
<i>Grandfathered</i>	241
<i>Access Exempt</i>	78
Geophysical Operations, surveys/year	1
Well Plugging/Reclamation, wells/year	4
New Drilling, wells/year	4

Table 2 identifies the parks that have nonfederal production operations, the number and regulatory status of wells, and the numbers of operators.

Table 2 – Nonfederal Oil & Gas Wells In Units of the National Park System						
<i>September 2013</i>						
Park	State	Regulatory Status			Total Operations	Operators
		Grandfathered	No Federal Access	Subject to 9B Regulation		
Alibates Flint Quarries NM	TX			5	5	1
Aztec Ruins NM	NM	1		3	4	2
Big Cypress NP	FL			20	20	1
Big Thicket NP	TX		2	37	39	16
Big South Fork NRR	TN, KY	98	54		152	31
Cuyahoga Valley NP	OH	66	21	3	90	21
Cumberland Gap NHP	TN, KY, VA	2			2	1
Gauley River NRA	WV	28			28	3
Lake Meredith NRA	TX	41		133	174	17
New River Gorge NR	WV	1			1	1
Obed WSR	TN	4	1		5	2
Padre Island NS	TX			14	14	2
12 Parks	8 States	241	78	215	534	98
% of TOTAL	N/A	45%	15%	40%	100%	

In order to understand the context of the incremental costs and benefits associated with the proposed rule change, the baseline conditions relevant to each of the proposed rule changes are summarized and discussed.

1. Exemption for Grandfathered Operations

The current 9B regulations provide that “grandfathered” operations (those in existence at the time that the regulations were promulgated and had a state or federal permit) may continue without an NPS-approved plan of operations or performance bond. The number of well operations that are still exempt or “grandfathered” is 241, or 45% of the total number of wells within park units.

Under the current 9B Regulations, grandfathered operations may continue as long as they do not pose an “imminent threat of significant injury” to park resources. On the other hand, operations subject to NPS plans of operations must conduct activities with “technologically feasible methods least damaging” to park resources. Because of the substantially lower operating standard, many grandfathered operations do not use best management practices that serve to protect parks resources and values, and visitor health and safety. Reliance on state regulatory programs, other federal laws and regulations, and the willingness of operators to voluntarily use best management practices often falls short of NPS park protection standards.

2. Exemption for Operations that Do Not Require Access On, Across or Through Federal Lands or Waters

Operations inside a park that can be reached without access on, across, or through federally owned or controlled lands or waters are outside the scope of the National Park Service’s current 9B regulations. Currently, 78 operations (15%) fall into this category of exempt status. Most of these operations are located in Big South Fork NRR in Kentucky and Tennessee and Cuyahoga Valley NP in Ohio. Though these operations are subject to all other federal, state, and local laws and regulations that may coincidentally benefit park resource protection, operators need not specifically consider and mitigate for potential effects on NPS natural and cultural resources and visitor values.

Oil and gas operations located on non-federally owned land within a park boundary can affect the federal interests the 9B regulations are designed to protect. Under existing 9B regulations, park managers are not able to ensure that all operations inside the boundary of a park unit are conducted in a manner that offers the highest feasible protection to a park’s federal resources and values.

3. Current Bonding Limits with Cost of Reclamation

The current 9B regulations contain a cap on performance bonds that creates a shortfall in bond coverage for well plugging and reclamation in NPS units. The cap exposes

taxpayers to plugging and reclamation liability for wells in in the event of an operator default.

The current NPS regulations place a cap on bonds of up to \$200,000 per operator, per NPS unit (36 CFR § 9.48). For an operator with multiple wells in a park, the NPS's bonding cap of \$200,000 may be insufficient to cover the costs of well plugging and site reclamation. While the \$200,000 cap does not set the limit of the operator's liability, reclamation exceeding the capped amount would require the NPS to initiate a costly and time consuming civil action to recover the additional costs for well plugging and site reclamation.

4. Lack of Mechanism to Recover NPS Costs Associated with Administration of Permits

Under existing regulations, the NPS cannot recover from an operator the costs for processing and administering proposed plans of operations. The NPS must expend staff time and expenses on administration of oil and gas permits that might otherwise be directed at conservation of resources and enhancement of visitor uses and experiences.

5. Lack of Fee Provisions for New Use of Federal Lands or Waters Outside the Boundaries of the Property Right

The current 9B regulations authorize the NPS to charge a fee for use of commercial vehicles on existing roads administered by the NPS (36 CFR 9.50). In applying the current 9B regulations, the NPS has encountered proposals that include establishment of new roads. An operator has a right of reasonable access across the surface of the land within the boundary of their mineral right; however, this access right does not extend outside the boundaries of the mineral right (e.g. access from a park boundary to an operator's mineral right). Under the existing regulations, the NPS has, in all cases, allowed this access beyond the boundary of the mineral right, but has not required compensation. This has amounted to a subsidy for oil and gas operators in NPS units since private landowners would charge for that land use.

6. Lack of Penalty Provision for Minor Acts of Non-Compliance

The Superintendent's current enforcement tools for violations of operations under an approved plan are limited to suspension or revocation of the plan. The Superintendent has no practical method for dealing with minor regulatory infractions that do not rise to the level of suspension, revocation, or judicial intervention. Examples of minor infractions include accumulation of oilfield debris onsite, slow response to small contained spills, and lack of maintenance on access roads.

C. Cost-Benefit Analysis

This section evaluates the expected benefits and costs for each of the changes described in the Purpose and Need section. The costs and cost savings of the proposed action are quantitatively analyzed. Benefits related to environmental protection, visitor values, and human health and safety are qualitatively analyzed. Quantitative analyses of the benefits were not conducted due to lack of available data, and because the additional cost of conducting quantitative analyses was not considered to be reasonably related to the expected increase in the quantity and/or quality of relevant information. Nevertheless, NPS believes this approach provides an appropriate means to characterize the relevant costs and benefits associated with this proposed regulatory action.

The proposed rule change is not expected to factor into an operator's decision to go forward with new geophysical and drilling projects. This opinion considers that the proposed rule change would not substantially alter the operator's cost of compliance with NPS regulations. Therefore, the expected level of future activity related to new geophysical and drilling operations is expected to be the same under the proposed rule as it would be without a rule change.

While the proposed rule changes are not expected to affect the level of new drilling, it may cause up to 100 depleted or marginally economic wells to be plugged and reclaimed. When faced with even minimal costs to maintain wells to NPS standards, operators previously unregulated by the NPS whose wells are generating little or no revenue (but have no operating costs) could decide to plug and reclaim.

The result could be that the historic level of about 550 active wells in park units at any given time could be reduced to about 450 active wells.

In order to understand the costs and benefits associated with the proposed rule change, each of the proposed rule changes are summarized and discussed.

1. Removing Grandfathered Exemption

Given that grandfathered wells are already drilled and completed and the area of operations (access route, well site, production facilities, and routes for gathering lines) has already been established, the NPS recognizes that it is appropriate to tailor the permitting process for this class of operations. Under the proposed rule, operations permits for previously grandfathered operations would focus on evaluation of the existing conditions and identification of actions necessary to bring the site to NPS operating standards. This limited permitting scope under the proposed rule would provide an efficient process to place grandfathered operations under the same applicable operating standards that currently regulated operations must meet. Park staff would work with individual operators to identify and correct deficiencies on a site-by-site basis.

Even though grandfathered operations are exempt from the plan of operations requirement under today's regulation, states require some level of permitting and

notification to plug and abandon wells. Thus, it is the NPS's experience that the grandfathered status is invariably lost when an operation moves to the plugging and reclamation phase. Thus, grandfathered wells are plugged and sites reclaimed to NPS standards under the current 9B regulations.

Under the proposed rule, previously grandfathered operations would also be subject to performance bonding requirements.

a) Costs

The proposal to remove the grandfathered exemption affects a finite number of existing operations. The provision would have no effect on new operations such as seismic exploration and drilling, or ongoing operations currently under an approved plan of operations. NPS statistics show that 241 operations in 8 park units will be affected by the rule change (see Table 2).

Removal of the grandfathered exemption will create incremental costs for operators in the categories of permitting, meeting NPS operating standards, and obtaining and maintaining performance bonds. These costs are summarized in Table 3.

An important consideration in this analysis is that many operators who have wells that are producing little or no income may decide to plug and reclaim rather than undertake the expenses necessary to maintain wells to NPS standards. Based on available production information on the 241 grandfathered wells' producing capacities, the

NPS found that over 200 of grandfathered wells are idle or reporting less than the equivalent of 1 barrel of oil per month. Thus, the NPS believes it to be reasonable to expect approximately one-half or 100 of these idle or low production wells would be plugged and reclaimed in the initial years following implementation of the proposed rule.

Also, the proposed rule is not expected to increase operator costs for plugging and reclamation as described below.

Operator Costs associated with the rule change consist of:

Table 3 – Operator Cost of Grandfather Exemption Removal				
Operator Cost	\$1000/year			\$/Well
	Year 1	Years 2 - 10	10-Year Amortized	10-Year Amortized Per Well
Permitting	120	0	16	100
Operation Standards	280	70	100	700
Plugging & Reclamation Standards	0	0	0	0
Maintain Performance Bond	225	225	225	1600
Total Costs	625	295	341	2400

- *Permitting:* Gathering and submitting documentation demonstrating that operators have a right to conduct operations and the current site conditions (area of disturbance, equipment on location, and description of current routine activities). The well at each location serves as a fixed reference point for a scaled survey of the disturbed area measured via GPS or measuring tape or a combination. Use of a certified professional surveyor is beyond the needs of the data collection. The primary purpose is to establish the area of operations for which the operator will be responsible for reclamation. The NPS estimates this information could be collected and provided by the equivalent of 1 person working 10 hours at a pay rate of \$50/hour (\$500) per well site. This is a one-time cost and would be incurred whether or not an operator decided to move to plugging and reclamation. For the 241 grandfathered wells, the estimated cost is approximately \$120,000 total. The annual cost amortized over 10 years using a 7% interest rate would be equivalent to \$16,000 per year as shown in Table 3.
- *Improving and maintaining site conditions to meet NPS operating standards:* This analysis considers only the costs associated with meeting any NPS requirements that are above and beyond other federal or state regulatory agency's requirements. Actions could include fencing around a facility in a visitor use area, noise mitigation such as engine mufflers or a lubrication schedule for pump jacks, painting, vegetation control, and removal of debris, waste, or equipment no longer needed in operations. Many sites do not meet requirements of other federal and state requirements (e.g., Spill Prevention Control and Countermeasure, erosion control, signing, stormwater runoff). Even though the rule change provides the NPS a regulatory means to require operators to comply with other federal, state, and local laws and regulations, the costs are not viewed as incremental.

In most instances, initial improvements to their operations costing from \$0 to \$4,000 per well site would enable the majority of operators to meet NPS standards. Maintenance of sites to NPS standards after the initial expenditure could add \$0 to \$1,000 in annual operating costs. Using average costs of \$2,000 and \$500 per well site for initial and annual costs respectively amounts to approximately \$280,000 initial expenditures and \$70,000 annually for the 140 operations expected to remain in production. The annual cost amortized over 10 years using a 7% interest rate would be equivalent to \$100,000 per year as shown in Table 3. The amount is approximately \$700 per year per well.

- *Perform plugging and reclamation to meet NPS standards.* The cost of plugging and reclamation to NPS standards is not considered an incremental cost attributable to removal of the grandfather exemption. Even though grandfathered operations are exempt from the plan of operations requirement under today's regulation, states require some level of permitting and notification to plug and abandon wells. Thus, it is the NPS's experience that the grandfathered status is invariably lost when an operation moves to the plugging and reclamation phase. As a result, the proposed rule change does not cause incremental plugging and reclamation costs.

- *Maintenance of a performance bond or equivalent surety.* The performance bond amount would be based on the estimated cost to plug wells and perform surface reclamation. Based on recent NPS contract amounts for plugging and reclaiming orphaned well sites in the where most grandfathered operations exist, the average bond amount that would be required of grandfathered operations is estimated to be \$30,000 per well site. The annual cost for an operator to maintain a performance bond with a surety company varies substantially depending on an operator's credit standing. If annual costs amount to much over 10% of the bond amount, it is assumed for this analysis that operators will use other vehicles such as an irrevocable line of credit or cash. Using the same 10% of bond amount as the "cost" for an operator not having that cash available, it appears reasonable to use 10% of the bond amount as the annual cost of maintaining the bond.

Of the 140 operations expected to remain in production, 65 operations would not effectively be bonded due to the existing bonding cap of \$200,000 per operator per park. Costs associated with removing the bonding cap are addressed for these 65 operations in that section. Therefore, perhaps 75 operations would require performance bonds due to removal of the grandfather exemption. Each having an average reclamation cost of \$30,000 and estimated annual cost of \$3,000 each to maintain a performance bond, total costs would amount to approximately \$225,000 per year.

Summing the cost areas listed above amounts to operator expenditures of \$625,000 in the first year and \$295,000 annually thereafter. Converting these costs over 10 years to current year value, and then amortizing that present value expense over 10 years, using a 7% interest rate yields an average annual expense of \$341,000 or \$2,400 per well.

NPS administrative cost. The NPS is expected to incur the cost equivalent of one full-time employee (GS-12) including expenses for one year to oversee the conversion of grandfathered to regulated status. This is a one-time expenditure and amounts to approximately \$160,000 or \$700 per well site. Converting these costs over 10 years to current year value, and then amortizing that present value expense over 10 years, using a 7% interest rate yields an average annual expense of \$21,000 or \$150 per well.

b) Benefits

This section describes the incremental benefits that would result from this proposed regulatory action. The incidence of these benefits falls primarily on the resources of the National Park System and on the visiting public that uses and enjoys them. In 2012, there were 5,544,560 recreational visits to parks with grandfathered operations. Therefore, these benefits would accrue to a substantial number of people.

These benefits were not monetized due to a lack of available data to support a reliable benefits transfer. Further, given the relatively low magnitude of costs described above, NPS does not consider the additional cost and time required to conduct original research

in order to estimate these benefits was reasonably related to the expected increase in the quantity and/or quality of relevant information.

Issues that revisions to the regulations are designed to resolve which would lead to improved resource protection/visitor values include, but are not limited to:

- Spill Prevention and Response – all resources and visitor health/safety/use
- Soils & Vegetation – erosion, sedimentation, contamination from poorly maintained pads and roads
- Site Security – easy access by visitors
- Unplugged wells – groundwater, unnecessary footprint in natural/cultural environments, visitor health/safety
- Housekeeping – abandoned oilfield equipment are an attractive nuisance presenting visitor safety issues, aesthetics.
- Poor equipment maintenance – unnecessary emissions (odors), sounds, visual
- Fire hazards – overgrown sites.

Effective and enforceable operating standards applied to all operations are key to a successful regulatory oil and gas management program. These photographs contrast tank batteries (oil and gas storage tanks) – one meeting NPS standards of adequate spill control, site security (fencing), equipment maintenance, vegetation management, and the other battery exempt from those standards.



Emphasis of bringing existing operations in to compliance with the new rule would be placed on remedying current and potential contamination problems and visitor safety issues at such operations.

In addition, many inactive, grandfathered gas wells have not

produced in over 15 years and should have been plugged and the surface reclaimed long ago. There are over 70 of these types of wells in park units. These wells may not rise to an imminent threat of significant injury to park resources or public health and safety; however, they are an unnecessary intrusion on the natural and cultural environments for which



the parks were created. Plugging and reclamation of this class of well could result in over 200 acres of disturbed lands being restored to natural conditions and processes.

Through the rulemaking, the NPS would work towards overall protection of resources and visitor values by applying the same level of resource protection to all operations.

Operators are expected to benefit from their expenditures in several financial ways due to improved visitor safety and environmental conditions of their sites. First, the way operations are conducted will directly affect the cost of surface reclamation. Improved housekeeping and stronger spill prevention and response would lead to reduced site contamination and lower site remediation costs. Second, improved site security and spill prevention measures reduce liability of the operator due to accidents or vandalism. Finally, because today's buyers are more aware of safety and environmental liabilities, removing them would increase the market value of the property.

Many of the grandfathered operations occur within areas used by the public. Park visitors would benefit from improved health and safety and environmental conditions as a result of the proposed rule change. The risk of exposure to both physical and chemical hazards would be reduced or removed. Hunters, hikers, campers, horseback riders, and visitors seeking other forms of recreation typically have an expectation of enjoying natural conditions. The sites, sounds, and odors of oil and gas activities can detract from the visitor experience, and NPS operating standards would serve benefit these park users by lowering or eliminating the aesthetic impacts of operations.

c) Conclusions

This analysis indicates an annualized cost to operators of approximately \$341,000 or \$2,400 per well resulting from the proposed regulatory action of removing the grandfathered exemption. These costs are normally a small percentage of a typical operator's total expenses, but for some individual operations, these costs can become economically significant as production declines and profit margins constrict.

The NPS would incur a one-time expenditure of approximately \$160,000 or \$700 per well site.

Park visitors would benefit from less intrusion on the natural environment from oil and gas activities as well as reduced risk of exposure to physical and chemical hazards.

Operators would experience financial benefits that serve to offset expenditures including reduced reclamation costs, reduced liability from accidents or vandalism, and higher property values of safer and more environmentally sound sites.

Based on the magnitude of quantified costs, and the break-even level of benefits described above, NPS believes the benefits associated with this proposed regulatory action are greater than the associated costs.

2. Removing Access Exemption

The NPS proposes to remove the access exemption in favor of making all nonfederal oil and gas operations within the authorized boundary of an NPS unit subject to the 9B regulations. The intent of this rule change is to reduce or avoid adverse impacts on federal resources and visitor values from oil and gas operations conducted on private lands within a park. The NPS would regulate operations on private surface estate only to the extent necessary to remove unwarranted impacts to the federal interest. For purposes of this analysis, it would serve to consider previously exempt and future operations separately.

The NPS evaluated well inventory information on the operating conditions of previously exempt wells, not subject to the 9B regulations because they do not use federal access. The proximity of these well sites and access roads to federally-owned or controlled lands and waters indicates that nearly all issues related to indirect effects on federal property can be removed if operations were run in compliance with all other federal, state, and local laws and regulations.

a) Cost

Because compliance costs of existing federal, state, and local laws and regulations cannot be attributed to the proposed rule change, it follows that the incremental operational costs of this provision are expected to be negligible. However, there are administrative costs associated with inspection of sites, identification of non-compliant conditions, and reporting/confirmation of work performed to come into compliance. These costs will occur for both operators and the NPS.

For example, one of the primary shortcomings of many operations is compliance with the spill prevention, control, and countermeasure requirements of 40 CFR, Part 112. For a well site inspection, preparation of written documentation of non-compliant conditions and actions needed for their remedy, and follow-up inspection and documentation is expected to involve an average of 40 hours at \$50/hour for a total of \$2000 per well site. This administrative cost would be shared roughly equally between operator and NPS staff time. In subsequent years, the administrative costs of monitoring would be roughly one-half the initial year or \$1000 per year. For this example, the costs necessary to comply with 40 CFR, Part 112 are not attributable to the revised 9B rule and therefore not part of this analysis.

The NPS would initiate regulatory controls only where those operations are causing, or could reasonably expect to cause adverse impacts to federal interests. The NPS expects that perhaps 20% of the 78 wells in this class would warrant NPS regulation. The cost would be approximately \$30,000 annually [78 wells * 20% * \$2000/well] in the initial year and \$15,000 annually thereafter. The operator's burden would be roughly one-half or \$15,000 in the initial year and \$8,000 annually thereafter. Converting these costs over

10 years to current year value, and then amortizing that present value expense over 10 years, using a 7% interest rate yields an average annual operator expense of \$8,500 or \$500 per well.

It has been fairly rare that a new operation such as well drilling can occur in a park without using some degree of access on, across, or through federally-owned or controlled lands or waters. In fact, new drilling on private lands inside park boundaries has been limited to a handful of wells on private property in Big South Fork National River and Recreation Area. The bulk of currently exempt wells were in existence at the time the land came into the National Park System.

Therefore, the cost of this provision on future operations is considered to be negligible on an annual basis. However, it is possible that a new operation in a sensitive area in close proximity to federal land could be subject to most of the administrative costs of permitting and some operating costs (such as site and sound mitigation).

Also, well plugging and site reclamation on private lands within a park unit that are performed to other federal, state, and local laws and regulations are expected to adequately protect the federal interests in all but a negligible number of instances. Therefore, performance bonding would not be an associated expense for this class of operations.

b) Benefits

The benefit of removing the access exemption is to natural, cultural, and recreational resources in park units that are being impacted or could reasonably be expected to be impacted by operations on private property where no federal access is required. For existing operations, relatively minor but unnecessary impacts due to about 15 well sites would be removed or at least notably reduced.

As noted with grandfathered operations, operators would experience financial benefits that serve to offset expenditures including reduced reclamation costs, reduced liability from accidents or vandalism, and higher property values of safer and more environmentally sound sites.

Perhaps the primary benefit is to give the NPS regulatory control over the instance where a new operation or series of new operations might occur on private property and be located and conducted without regard for nearby federal interests. It is speculative as to where and how something of this nature might occur, and so attributing costs and benefits to the provision would also be speculative.

c) Conclusions

The provision removing the exemption for operations that do not use federal access is expected to increase NPS and operator combined administrative costs annually by about \$30,000 initially and then decrease to \$15,000 annually thereafter. The associated

benefits would be improvement of environmental conditions on operational sites and reduction of the potential for cross-boundary affects on federal property. The improvements will be relatively small when compared to the overall effects of oil and gas operations, but will help remove and minimize impacts to resources and visitor enjoyment that are completely unnecessary. Safer and more environmentally sound operations sites improve the property value and serve to reduce future reclamation costs.

3. Removing Bonding Limits

NPS proposes to remove the cap on bond amounts and make them equal to the estimated cost of well plugging and reclamation.

a) Costs

Removing bonding limits would increase the cost of providing financial assurance for some operators of existing production operations and future drilling/production operations.

Seismic operations will most likely be unaffected by removing the bonding limits because reclamation and liability requirements would continue to fall below the current \$200,000 for the foreseeable future.

The National Park Service reviewed current performance bond amounts compared to actual estimates for plugging and reclamation. If all operators and their wells were subject to performance bonds under the existing regulation and its limits, approximately 150 operations (30%) would not be effectively bonded. The shortfall in bond coverage for plugging and reclaiming these 150 operations is estimated to be approximately \$12 million.

The proposed rule would remove caps on performance bonds so that existing operators would need to provide additional performance bonding of \$12 million to cover the actual cost of site reclamation. The annual cost for an operator to maintain a performance bond with a surety company varies substantially depending on an operator's credit standing. If annual costs amount to much over 10% of the bond amount, it is assumed for this analysis that operators will use other vehicles such as an irrevocable line of credit or cash. Using 10% of the bond amount as the annual cost for an operator to maintain surety that meets the regulatory requirement yields an estimated \$1.2 million annual cost to existing operators as a result of this rule change.

For clarification, these 150 operations consist of 85 wells that are currently under plans of operations with bond amounts inadequate to cover the cost of plugging and reclamation due to the current caps and approximately 65 wells that are currently grandfathered whose bond amounts would still be inadequate under the proposed rule to remove that exemption. Thus, the \$1.2 million dollar expense is in addition to the \$225,000 bonding expense due to loss of grandfathered status.

Future well locations and required reclamation are unknown, but it would be reasonable to assume a similar percentage of future operations would require performance bonding exceeding the current \$200,000 bond cap. Thus, the NPS would expect that 3 in 10 new operations (same 30% as above) would require performance bonding over and above the existing \$200,000 limit. NPS oil and gas statistics show that the total number of operations has not varied substantially over the years. Essentially, as new wells are drilled and placed on production, old wells are plugged and the surface reclaimed. Therefore, the overall level of performance bonding is not expected to change substantially in the future so that the estimated incremental annual cost of \$1.2 million includes both existing and future operations.

b) Benefits

This change puts the burden of financially assuring reclamation on the operator and does not subject the public to the risk of having to carry that burden if the operator defaults on its obligations. The proposed rule would make the bond amount equal to the reasonable estimated costs of reclamation.

c) Conclusions

Since the regulation deals with nonfederal oil and gas operations, the public does not participate in the financial benefits of oil and gas production. Therefore, the benefit of removing financial risk to the public (by ensuring operators fully bond for reclamation) is greater than the associated costs.

4. Adding Provision to Recover NPS Costs Associated with Administration of Permits

The proposed rule would add a new term “Operations Permit” as the permitting vehicle for all operations. An operations permit is defined under the proposed rule as a special use permit subject to cost recovery pursuant to 16 USC § 3a, which authorizes the NPS to recover all costs associated with providing necessary services associated with special use permits.

a) Costs

The service costs associated with administering a permit consist of a one-time fee for processing a permit application, and then a reoccurring annual fee for monitoring operations for compliance with the permit.

The one-time fee for processing permits would vary largely depending on the complexity of the permit, site location, and proximity to sensitive resources (i.e., species habitat, wetlands and water features, cultural resources, etc.). The NPS estimates this one-time fee to range from \$500 to \$5,000, but trend towards the high-end of the range since most

operations will have notable implications on park resources and visitor values. As noted in the Baseline Conditions section, the NPS expects an average of 5 permit applications per year. Using the high-end estimate of \$5,000 per permit application, the average annual cost to operators is expected to be approximately \$25,000 per year.

The NPS is expected to incur the cost equivalent of one full-time employee (GS-12) including expenses for one year to oversee the conversion of grandfathered to regulated status. This is a one-time expenditure and amounts to approximately \$160,000. Also, as described for removal of access exemption, the NPS is expected to incur costs of \$15,000 in the first year to accomplish permitting of previously exempt operations.

Annual monitoring costs consist of staff time to visit and document conditions at operations sites, compile information into a monitoring report, and conduct follow up correspondence with operators where conditions of non-compliance exist. These costs will also vary depending on complexity of operations, ease of access, and rates of non-compliance issues. The NPS estimates the range to be between \$120 and \$500 with the average trending towards the low side. Most operations are simple, easily accessible, and expected to have fairly low rates of non-compliance. For this analysis, the NPS uses a cost of \$250 per well per year, or \$109,000 annually for monitoring 434 wells.

Summing the costs above equals total permitting and monitoring costs of \$309,000 in the first year, and \$134,000 annually thereafter.

Converting these costs over 10 years to current year value, and then amortizing that present value expense over 10 years, using a 7% interest rate yields an average annual expense of \$157,000 or \$360 per well.

The fees would be expected to adversely affect costs to new and continuing operations, although these costs are small relative to the total costs of permitting, drilling and producing wells.

b) Benefits

The NPS (i.e., public) would benefit by reimbursement of costs incurred to administer permits, which is expected to be approximately \$157,000 per year as described above.

Increased monitoring and evaluation of operations that could be funded by permit application fees would allow for NPS to detect potential problems such as spills and releases, and ensure operational compliance, thereby mitigating potential impacts on many resources including water resources. Although permit application fees could be used for a variety of programs, benefits from cost recovery could accrue to natural, cultural, and recreational resources to the extent these funds were applied to increased monitoring and evaluation of operations.

c) Conclusion

Since the regulation deals with nonfederal oil and gas operations, the public does not directly participate in the financial benefits of oil and gas production. Therefore, the benefit of removing economic burdens on the public (by recovering costs incurred by the NPS to administer permits) is justified.

5. Adding Provision for Fees for Privileged Off-Lease Access on Federal Lands or Waters

The NPS's proposed rule would supplement this existing regulation by authorizing a fee for use that involves new construction (e.g., new roads and gathering lines) on federal lands outside the boundary of an operator's mineral right. The NPS' proposal also includes the authority to accept in-kind reclamation in lieu of fees.

a) Costs

This provision will add to the cost of operating only for those operations, both existing and future, that require privileged use of federally owned or administered lands outside the boundary of the tract of land where the operator is exercising its mineral right.

Typically, an operator's privileged use may be 1) on a road administered by the NPS, 2) new construction of a lease access road, or 3) a combination of the two. The current regulations provide a means for compensation for an operator's use of NPS administered roads. Therefore, the incremental costs associated with the proposed rule relate only to situations where an existing access to the mineral boundary involves new construction.

The NPS conducted a review of current operations using privileged access that have involved new construction. The review found that approximately 75 operations in 5 parks currently use about 90 acres of disturbance. For context, 90 acres represents about 5% of the disturbance created by all nonfederal oil and gas operations.

In implementing the proposed rule, the NPS would set the fees consistent with those authorized under NPS' Part 14 Rights-of-Way regulations (see 36 CFR 14.26 and RM-53 Special Park Uses (Appendix 5, Exhibit 2) (guidance to calculate fees).

One such method of assessing annual rental fees is used by both the Bureau of Land Management (BLM) and the United States Forest Service (USFS) in their Linear Rights-of-Way Rental Fee Schedules. The fee schedules are based on 1) land values established by the National Agricultural Statistics Service (NASS), 2) an encumbrance factor of 50%, and 3) a 10-year average Treasury Security-based amortization rate. Applying data in tables published by NASS and BLM to specific land use in counties where privileged access under the 9B regulation is occurring yields an estimate of service-wide access fees of \$6,000 annually, or an average of just \$67/acre/year.

If one assumes that the average land value of acreage inside a national park is much higher than the average land value in surrounding counties, it would be evident that the above method produces a low-side calculation of annual rental fees. Other sound practices of determining land use values, such as actual appraisal of land use rental fees or use of Habitat Equivalency Analysis (HEA)¹, would likely result in higher fees. However, these determinations may involve expenditures by the NPS that are more costly than the additional fees collected. Even though other methods of fee calculation may be used, fees would be expected to be in the same order of magnitude as those calculated using the Linear Rights-of-Way Rental Fee Schedules used by the BLM and USFS.

With no data to support otherwise, an integral assumption of this analysis is that fees charged for use of privileged access would remain relatively constant going forward. That is, the level of privileged use is expected to remain relatively constant as reclaimed use is replaced by new uses.

It should be noted here that fees on a per operator basis vary widely (i.e., costs ranging from \$30 to \$3,000 per year) from use of just fractions of an acre where a road may cut across a corner of federal land to over 30 acres in the case of an 11-mile road constructed to reach the Raccoon Point Field in Big Cypress National Preserve.

Seismic operations are conducted only on lands where permissions from nonfederal mineral rights holders have been granted to the geophysical companies. The large scale 3D seismic surveys that are conducted in today's industry rarely rely upon access across federal lands in park units where grants of permission have not been obtained. Therefore, the access fee provisions of the proposed rule will not substantially apply to seismic operations.

Additionally, if the NPS directs the use of off-lease land use in order to minimize overall impacts of the operations, the operator would not be assessed the fee. For example, if an operator could access a new drilling/production site while staying within its oil/gas lease, but an off-lease access route would avoid a highly sensitive resource, off-lease access fees would not apply.

b) Benefits

The access fee for privileged use of federal land is a financial benefit to the public in equal amounts to the fees charged, or an estimated low end of \$6,000 per year. Operators would benefit by privileged use of federal surface by a fair-market-based amount equivalent to the assessed fee.

¹ HEA is a widely used methodology in the assessment of resource damages conducted under the Park System Resource Protection Act (16 U.S.C. 19jj), the Oil Pollution Act of 1990 (33 U.S.C. 2701 *et seq.*), and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 *et seq.*). HEA is specifically listed as a methodology that may be used to determine the scale of compensation for lost resource services in the preamble to the damage assessment regulations for the Oil Pollution Act of 1990 (see volume 61, page 498 of the Federal Register, January 5, 1996). HEA is also described in the U.S. Fish and Wildlife Service manual for conducting natural resource damage assessments (Unsworth and Petersen 1995).” [From Habitat Equivalency Analysis: Conceptual Background and Hypothetical Example by Bruce Peacock, National Park Service]

c) Conclusions

Since the access fee provision compensates the public in the same manner as a private property owner outside a park unit would be compensated, the costs to the operator are fully offset by the value of the beneficial use of the federal surface.

6. Adding Penalty Provision for Minor Acts of Non-Compliance

The NPS is proposing to incorporate the existing penalties provision under the NPS General Regulations at 36 CFR 1.3 into the 9B regulations.

The ability of NPS law enforcement to issue fines would provide a meaningful incentive for those operators whose wells are not generating income (and thus are not penalized by suspension) to come into compliance with NPS standards.

The initial steps of dealing with issues of noncompliance would remain the same as under the existing rule. When the NPS learns of a compliance issue associated with an operation in a park, the Service's first approach is to work with operators to have them rectify the situation. If this approach is not successful, then the NPS issues a notice of non-compliance to the operator.

a) Costs

Costs of this revision would only affect those operators that 1) allow their operations to fall into a state of non-compliance, 2) fail to respond to the informal notification, and 3) fail to respond to an official notice of non-compliance. The NPS expects this situation to occur rarely, certainly no more than once or twice per year.

The amounts of fines under 36 CFR §1.3 are likely to fall in the range of one hundred to several hundred dollars, so the cost of the fine is negligible. The intangible costs of an operator having to appear before a magistrate or having a misdemeanor on its record serve as deterrents much more so than the amount of the fine.

Monitoring and compliance work is a baseline cost of the current regulation. Most operators respond to informal notifications from park staff that an activity or condition on the operations site does not meet the operating standards. But for those few operators that do not respond to an informal notification, it is estimated that park managers and central support offices have spent up to \$25,000 in a year in equivalent salaries addressing these unaddressed minor acts of non-compliance. The additional effort often achieves less than desired results. The proposed penalty provisions are expected to motivate non-compliant operators to respond more quickly and do what is necessary to avoid penalties.

b) Benefits

It is reasonable to estimate a 90% reduction in NPS administrative costs compared to the past to address operator compliance with their approved plan, which would result in savings equivalent to more than \$20,000 annually.

The penalty provisions are expected to reduce the rates of and the time taken to address non-compliance events and their associated adverse impacts. Adverse impacts from minor acts of noncompliance include accumulation of oilfield debris onsite, slow response to small contained spills, and lack of maintenance on access roads. Oilfield debris can cause a reduction in the aesthetic value of a natural area that is above and beyond the reduction from an otherwise well-maintained oil and gas operation. Small spills of hydrocarbons left unattended pose an increased health danger to birds, and reptiles, amphibians, and small mammals. Lack of maintenance on pads and access roads unnecessarily contributes to erosion and sedimentation problems.

c) Conclusion

The penalty provision is expected to shift NPS costs of addressing minor acts of non-compliance by a relatively small amount of \$20,000 annually but generally improve day-to-day environmental conditions on operational sites. The improvements will be relatively small when compared to the overall effects of oil and gas operations, but will help remove and minimize impacts to resources and visitor enjoyment that are completely unnecessary.

7. Summary of Costs and Benefits of the Proposed Rule Change

Table 4 is a summary of activity and costs associated with baseline conditions of NPS oil and gas regulation and the changes expected with the proposed rule change.

A key component of the analysis is the expectation that implementation of the proposed rule would not affect the level of new exploration and development or noticeably affect the level of oil and gas production.

This analysis indicates an annualized cost to operators of approximately \$1,712,000 or approximately \$3,200 per well would result from the proposed regulatory actions. The costs are normally a small percentage of a typical operator's total expenses, but for some individual operations, these costs can become economically significant as production declines and profit margins constrict.

Table 4 – Summary of Activity and Costs Associated with NPS Oil and Gas Regulation and Proposed Rule Change			
Item	Baseline	Change With Rule Implementation	Future
Level of Activity			
Total Production Operations, # of wells	534	-100	434
<i>Subject to 9B Regulation</i>	215	319	434
<i>Grandfathered</i>	241	-241	0
<i>Access Exempt</i>	78	-78	0
Geophysical Operations, surveys/year	1	0	1
Well Plugging/Reclamation, wells/year	4	10	14
New Drilling, wells/year	4	0	4
Operator Costs of Proposed Rule, \$1000/year			
Grandfather Exemption	\$ 341		
Access Exemption	8		
Bonding Limits	1,200		
Cost Recovery	157		
Privileged Access Fees	6		
Penalty Provision	0		
Total Operator Costs, \$1000/year	\$ 1,712		

Operators would experience financial benefits that serve to offset expenditures including reduced reclamation costs, reduced liability from accidents or vandalism, and higher property values of safer and more environmentally sound sites.

Park visitors would benefit from less intrusion on the natural environment from oil and gas activities as well as reduced risk of exposure to physical and chemical hazards.

The general public would benefit by removing financial risk by ensuring operators fully bond for reclamation, and receiving fair compensation for operator's privileged beneficial use of the federal surface. Cost recovery would enhance NPS administration of nonfederal oil and gas activities and potentially lead to improved protection of natural, cultural, and recreational resources.

Based on the magnitude of quantified costs, and the break-even level of benefits described above, NPS concludes that the benefits associated with implementing the proposed alternative justify the associated costs. Further, the proposed alternative is not expected to have an annual economic effect of \$100 million, or to adversely affect an economic sector, productivity, jobs, the environment, or other units of government. The proposed regulatory action will improve economic efficiency.

III. Regulatory Flexibility Threshold Analysis

The Regulatory Flexibility Act, as amended by the Small Business Regulatory Enforcement Fairness Act, requires Federal agencies to analyze impacts of regulatory actions on small entities (businesses, nonprofit organizations, and governments), and to consider alternatives that minimize such impacts while achieving regulatory objectives. Agencies must first conduct a threshold analysis to determine whether regulatory actions are expected to have a significant economic impact on a substantial number of small entities. If the threshold analysis indicates a significant economic impact on a substantial number of small entities, an initial regulatory flexibility analysis must be produced and made available for public review and comment along with the proposed regulatory action. A final regulatory flexibility analysis that considers public comments must then be produced and made publicly available with the final regulatory action. Agencies must publish a certification of no significant impact on a substantial number of small entities if the threshold analysis does not indicate such impacts.

This threshold analysis examines impacts of the proposed revisions to 36 CFR, Part 9B regulations on small entities. This analysis indicates there will not be a significant economic impact on a substantial number of small entities resulting from the proposed regulatory action.

A. Identifying Small Entities

The U.S. Small Business Administration size standard for Subsector 211, Oil and Gas Extraction is 500 employees.

The 534 nonfederal oil and gas operations are conducted by 98 different operators. Of these, only 8 operators do not qualify as a small business because they employ over 500 persons. All 15 access exempt operators are small entities, and 52 of the 54 operators with grandfathered wells are small entities. Eight small entities operate both grandfathered and access exempt wells. The current universe of small businesses that may be impacted by this rulemaking is limited to 90 businesses compared to the estimated number of 28 million small businesses in America.

According to the U.S. Census Bureau, there are over 21,000 small U.S. businesses engaged in the “Mining, quarrying, and oil and gas extraction” sector. Of these, 8100 small businesses are registered in the five states (NM, OH, TN, TX, and WV) where small businesses operate in units of the National Park System. Thus, 90 businesses represent approximately 1% of local businesses in the same sector.

Still, the NPS does not discount how these 90 small entities engaged in oil and gas extraction would be affected.

Table 5 provides a summary of business types, the numbers of wells they operate, and their regulatory status.

Table 5 – Business Type Summary of Wells and Regulatory Status				
Regulatory Status	Small Entity		Large Entity	
	# Operators	# Wells	# Operators	# Wells
Grandfathered	52	198	2	43
Access Exempt	15	78	-	-
Regulated	25	118	6	97

Small entities operate an average of 5 wells each while large entities operate an average of 18 wells each.

Table 6 provides annual receipts for different sizes of small businesses engaged in the oil and gas extraction industry. Data is based on the 2007 Economic Census of the United States. Since the majority of the small businesses operating in parks are not public companies, company-specific data is not available to the NPS. However, the NPS believes the majority of the 90 small businesses operating in parks would be represented by companies with less than 50 employees. The average annual receipts for this group is calculated to be about \$15.7 million. On average the same groups incur average annual expenses and investments of approximately \$9.8 million.

Table 6 – Annual Receipts and Expenditures for Small Businesses in the Oil & Gas Extraction Industry				
# of Employees	# of Establishments	Total Receipts (\$1,000)	Average Annual Receipts per Establishment (\$)	Average Annual Expenses and Investments per Establishment (\$)
0 – 4	3,349	9,023,025	2,694,000	1,395,000
5 – 9	981	9,126,171	9,303,000	5,507,000
10 – 19	746	16,550,891	22,186,000	14,371,000
20 – 49	656	55,095,746	83,987,000	53,590,000
0 - 49	5,732	89,795,833	15,666,000	9,761,000
50 – 99	278	35,688,074	128,374,000	84,554,554
100 – 249	163	37,419,904	229,570,000	182,949,552
249 – 499	45	29,750,485	661,122,000	505,237,533

B. Threshold Analysis

The proposed regulatory changes are expected to affect small entities in various manners. The financial impacts of proposed addition of penalties for minor acts of noncompliance are expected to be negligible for all operators. Also, the proposed addition of fees for privileged use of federal surface would be equivalent to the value of such use, so the net

financial impact is neutral. The remaining proposed rule changes are discussed in the following sections.

1. Removing Grandfathered Exemption

There are 52 small entities that are grandfathered. These businesses are operating 198 wells in 8 units of the National Park System. Analysis included herein indicates that these 52 business could incur regulatory compliance costs of \$2,400 per well.

The cost of NPS compliance is typically a small percentage of the overall operating costs of a well. In general, small businesses that conduct their operations in compliance with other federal, state, and local laws and regulations would incur costs substantially less than those that do not. Compliant operations would incur fewer costs to bring operations to NPS operating standards and would typically have lower remediation and reclamation costs, which translates to lower costs to maintain financial assurance.

As noted in the economic analysis, the operational expenditures by operators would partially, or in some cases completely, be offset by the improved value of the property that results from removing risks and liabilities.

The NPS recognizes that those operators who have wells that are producing little or no income may decide to plug and reclaim rather than undertake the expenses necessary to maintain wells to NPS standards. NPS research found that the wells that operators have in units of the National Park System typically represent a very small fraction of their total operations in the area. Thus, even though the added expense of the proposed regulation to remove the grandfather exemption may negatively affect individual well economics, it would not be expected to notably affect the business.

The NPS considered other means of accomplishing the regulatory goal ensuring that all operations within NPS units, including the 45 percent of exempt operations, are conducted in a manner that protects park resources and values. One alternative to a rule making is to work with operators on a voluntary basis and working with other permitting agencies. This approach would substantially lower or remove the financial burden on small businesses, but has proven in the NPS experience to be minimally effective towards the purposes of the proposed rule.

The NPS also considered fully applying the current regulatory process to move grandfathered operations under a permit. For a new operation, the NPS requires an operator to submit the information necessary for the NPS to select the least damaging locations for its access route, drilling site, production facilities, and gathering lines routes. This approach for existing operations would meet the regulatory goal, but create unnecessary information costs on the operator since the well has already been drilled and the area of operations (access route, well site, production facilities, and routes for gathering lines) has already been established. The proposed rule narrows the focus of the permit requirements for currently grandfathered operations to only information pertaining to existing operational conditions, and so reduces the associated permitting costs.

2. Removing Access Exemption

The 78 wells that currently benefit from the access exemption are operated by 15 different operators, all of which are small businesses. The NPS would initiate regulatory controls only where those operations are causing, or could reasonably expect to cause adverse impacts to federal interests. The NPS expects that perhaps 20% of the 78 wells in this class would warrant NPS regulation.

The analysis is similar to that of removing the grandfather exemption, but the regulatory cost are expected to be lower, \$500 per well per year, and apply to fewer small businesses.

Alternatives to a regulatory undertaking included working with operators on a voluntary basis and working with other permitting agencies. This approach would likely remove the financial burden on small businesses, mainly because the NPS could voice its concerns only as an adjacent land manager. With less incentive for cooperation by operators or other permitting agencies, the probability of achieving the purposes of the proposed rule would be very low.

3. Replacing Bonding Limits

Though operator status could change in the future, the NPS evaluated the effect of removing the bonding caps on the currently operating small businesses. Removing the caps could increase overall industry costs by \$1.2 million dollars annually. The analysis found that approximately 1/3 or \$400,000 of the expected \$1.2 million dollars would fall to small businesses.

Removing the bonding cap would affect 10 small entities and 59 of their wells. Analysis indicates that approximately 75% of the \$400,000 would fall to 2 small businesses that either operate numerous wells, or operate in an area where plugging and reclamation costs are very high. The other 8 small entities would be impacted to a much smaller degree ranging from approximately \$6,000 to \$25,000 per year depending mostly upon how many wells the company operates in a park.

The remaining 80 small businesses conducting operations in parks would have financial assurance requirements that fall below the current \$200,000 cap and thus would not be affected by the rule change.

As noted earlier, the NPS found that operations in parks typically represent a small percentage of a businesses' operating portfolio. Thus, even though the added expense of the proposed regulation to remove bonding caps may negatively affect individual well economics, it would not be expected to notably affect the business.

The purpose of the proposed rule change is to protect the public from financial exposure. The NPS considered an alternative that would remove the bonding cap, but retain the

current regulation method of establishing the bond amount. The current method adds the estimated cost of reclamation to a liability amount established to provide for response and cleanup of damages caused by spills or fires. This alternative would meet the regulatory goal, but unnecessarily add to an operator's cost of maintaining financial assurance. Instead, the proposed rule change would limit and bond amount to the estimated cost of reclamation.

The NPS also considered increasing the financial assurance cap to some amount higher than \$200,000. This alternative could result in lower costs for an operator to maintain bonds, but the cost reduction would be in proportion to increased public exposure, which falls short of the regulatory objective.

4. Provision for Cost Recovery

All 90 small businesses that conduct nonfederal oil and gas operations in park units would be affected by the rule change for cost recovery. Large businesses operate 147 wells of the 434 wells expected to remain in operation, thus the number of wells operated by small business is expected to be 287. Although ownership status can change, it is assumed to remain constant for purposes of this analysis. From the economic analysis, the NPS expects 5 permit applications per year on average. Given that small businesses represent the greatest percent of overall operators, this analysis considers that 4 of 5 of the permitting actions will be conducted by small businesses.

From the economic analysis, reimbursable costs for permitting are estimated to be \$5,000 per permit, or \$20,000 annually for the 4 permits estimated to be processed for small businesses. Reimbursable monitoring costs from the economic analysis are estimated to be \$250 per well, or \$72,000 annually for 287 wells. Thus, small businesses are estimated to incur \$92,000 annually for cost reimbursements to the NPS.

Alternatives to the proposed rule on cost recovery for actual expenses incurred include maintaining the current practice of no cost recovery or establishing a set fee schedule for permitting and monitoring services. The alternative of imposing no cost recovery does not address the regulatory objective of providing equitable financial compensation to the public. An established fee schedule would likely be based on actual average costs incurred, and so should be roughly equivalent to the proposed rule.

5. Summary of Threshold Analysis

The threshold analysis indicates that the low number of entities affected could meet the costs imposed by the proposed rules changes. The rule change would not be expected to result in any business closures, and would not disadvantage small entities relative to large entities. These conclusions are based on 1) cost of regulatory compliance being a very small percentage of average annual receipts, and 2) operations in parks being a small percentage of a business' asset portfolio.

Table 7 – Summary of Regulatory Flexibility Threshold Analysis					
Column I	Column II	Column III	Column IV	Column V	Column VI
Rule Changes Impacting Small Businesses	No. of Small Businesses Affected	No. of Operations Potentially Affected	Average Cost of Regulatory Compliance Per Operation, \$/Yr	Potential Total Cost of Regulatory Compliance, \$/Yr	Percent of Costs to Average Annual Receipts
Grandfather Exemption	52	198	\$2,400	\$475,000	0.01%
Access Exemption	15	17	\$500	\$8,500	<0.01%
Bonding Limits	10	59	\$6,800	\$400,000	0.25%
Cost Recovery	90	287	300	92,000	<0.01%

Table 7 is a summary of the regulatory flexibility threshold analysis using average receipts for businesses with between 0 and 49 employees (see Table 6).

Columns I – III provide the number of businesses and operations affected by the proposed rule changes. Column IV is the average cost of regulatory compliance per well as described in the preceding analysis. Column V is the number of operations potentially affected multiplied by the average cost of regulatory compliance (Column III x Column IV). Finally, Column VI provides a comparison of the regulatory cost in Column V to the annual receipts of the small businesses affected (Column II x \$15.7 million from Table 6). The analysis shows that the expected regulatory costs amount to a fraction of a percentage point of annual receipts.

Using the average receipts for companies with between only 0 and 4 employees (\$2,694,000 from Table 6) still results in cost to receipts percentages of substantially less than 1 percent. Given these findings, this proposed regulatory action will not impose a significant economic impact on a substantial number of small entities.